

DOE COMMUNITY MEETING The Plantation

August 12, 1997

6:30 - 7:00 p.m. Availability Session

7:00 p.m. Opening

Welcome/Introductory Remarks

Gary Stegner

7:20 Presentations and Updates

FY'98 Budget/Site Priorities

Jack Craig

Cleanup Status

Johnny Reising

Agency Updates and Stakeholder Groups

U.S. EPA
Ohio EPA
Citizens Advisory Board
Community Reuse Organization
FRESH

Gene Jablonowski
Tom Schneider
John Applegate
Dan Lawler
Lisa Crawford

8:40 Question and Answer Session

After the meeting, DOE/FDF staff will be available to talk with the public.

Waste Pits Remedial Action Project

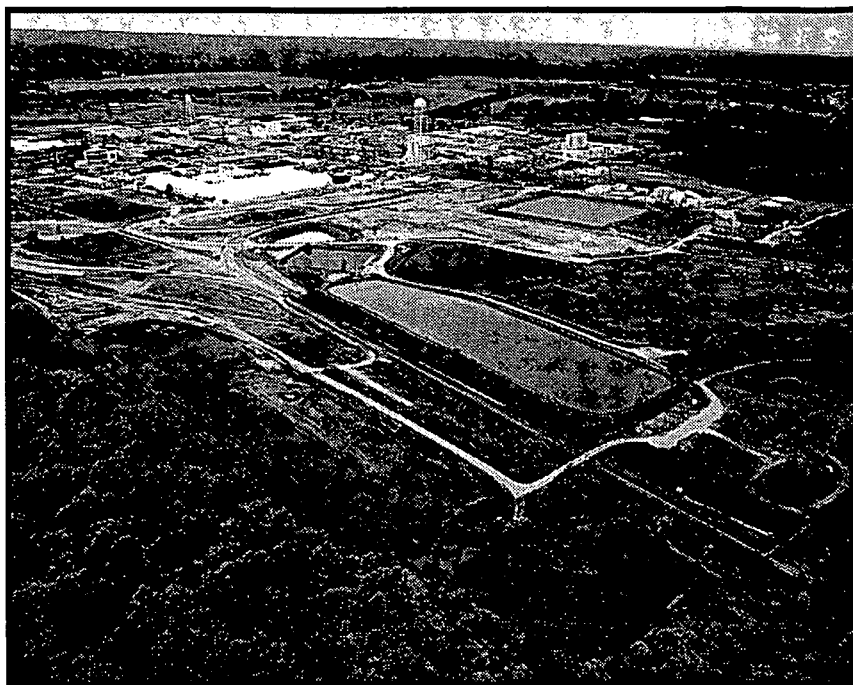
**(Operable
Unit 1)**

August 1997

For More Information

Contact the Public Environmental Information Center (PEIC), Delta Building, 10995 Hamilton-Cleves Highway, Harrison, Ohio 45030 (phone: 513-648-7480 or -7481); or send an e-mail message to Rene_Eichhold@fernald.gov.

For specific questions about Operable Unit 1, contact Dave Lojek, DOE-FEMP Operable Unit 1 branch chief, 513-648-3127; or send e-mail to Dave_Lojek@fernald.gov.



The Operable Unit 1 waste pits range in size from a baseball diamond to a football field and vary in depth from 13 feet to 30 feet. More than 700,000 cubic yards of contaminated materials are estimated to be associated with the cleanup of the waste pits (6600-35).

Description

Operable Unit 1 is one of five well-defined areas being remediated at the U.S. Department of Energy's (DOE) Fernald Environmental Management Project (FEMP). Each operable unit was defined based on its location or the potential for similar technologies to be used in the ultimate cleanup.

Based on investigations and studies performed to determine the nature and extent of contamination in Operable Unit 1, alternatives for Operable Unit 1 remediation were developed and analyzed to determine the most appropriate remedy. On March 1, 1995, the U.S. Environmental Protection Agency (U.S. EPA) signed the *Record of Decision for Remedial Actions at Operable Unit 1*.

Key Components of the Selected Remedy

- Excavation of the waste from the pits and residual contaminated soils from beneath the pits;
- Preparation and processing of materials from the waste pits (e.g., sorting, crushing, shredding, etc.);
- Thermal drying (as necessary to meet the waste acceptance criteria of the disposal facility);
- Treatment of off-gas by a system designed to remove, to established levels, contaminants which might be present in emissions from the drying process prior to discharge to the atmosphere;
- Off-site rail shipment to a permitted commercial disposal facility;

The remedial action work plan summarizes the purpose and scope of the project, describes primary requirements and considerations for implementation of remedial action, sets forth an overall implementation strategy for the Operable Unit 1 remedial action, and provides a framework document from which the remedial action deliverables will be prepared.

The project approach for implementing the remedial action, as defined in the remedial action work plan, divides the responsibility for performing the remediation activities between Fluor Daniel Fernald and an Alternative Remedial Action Subcontracting Approach (ARASA) subcontractor. Under this plan for division of work, the ARASA subcontractor is responsible for:

- excavating the waste pits and surrounding contaminated soils;
- processing the waste materials, as necessary, to meet the disposal facility waste acceptance criteria;
- and loading the processed waste into railcars (including the installation of a liner and lid) for shipment to a permitted commercial disposal facility.

Fluor Daniel Fernald and DOE FEMP will be responsible for oversight of the ARASA subcontractor's activities, including acceptance of the subcontractor's "certified-for-shipment" railcars. In addition, Fluor Daniel Fernald will be responsible for transportation (both on- and off-site) and disposal activities.



Workers are driving steel piles in preparation for replacing existing wooden beams with steel girders on the Okeana Trestle, which is 671 feet long and 100 feet high (6600-98).

The remedial action work plan also establishes the following enforceable milestones for the Operable Unit 1 remedial action:

—initiation of substantial continuous on-site remedial action by June 3, 1996, i.e., within 15 months of signing of the Operable Unit 1 record of decision (This milestone has already been met, with work initiating on April 1, 1996.);

— submittal of the Operable Unit 1 transportation and disposal plan by April 30, 1998;

— initiation of operations (i.e., loading of waste which meets the waste acceptance criteria of the permitted commercial disposal facility into railcars) by March 1, 1999; and

— completion of operations (including the above-grade decontamination and dismantlement of the waste pit remediation facilities) by May 31, 2005. These last two enforceable milestones have been incorporated into the schedule for the ARASA subcontractor.

In addition, the remedial action work plan stipulates the ARASA subcontractor's "submittal register" will be provided to U.S. EPA and Ohio EPA within 60 days of the award of the ARASA subcontract and identifies dates for the ARASA subcontractor's remedial design and remedial action deliverables, which will form the basis for establishing additional enforceable milestones.

Operable Unit 1 On- and Off-Site Improvement Activities

Site improvement/preparation activities needed to support remediation facilities (including ARASA) and other activities were initiated April 1, 1996. Initiation of these activities demonstrated the beginning of substantial continuous, on-site remedial action (in accordance with CERCLA) within 15 months of signing the Operable Unit 1 record of decision.

The on-site improvements include various activities which directly support the installation and operation of the remediation facility such as:

- construction of a rail loadout area (with a rail scale); drainage pipe modifications;
- construction of a retaining wall; installation of erosion control;
- site clearing and grading for construction of the waste processing facility;
- and activities required to construct the stormwater management system that will support Operable Unit 1 remediation.

These activities are complete within the area where the ARASA subcontractor's remediation facility will be located. However, work is continuing on the on-site rail enclave and the foundation for the locomotive maintenance building. Completion of all of these on-site improvements is planned for September 1997.

Activities at the FEMP also include construction of an on-site rail system to support the off-site shipment of waste to the permitted commercial disposal facility.

These improvements include:

- modifications to existing rail lines in and around the ARASA subcontractor's work area;
- construction of a railyard to the north of the former Production Area for the storage of empty incoming and full outgoing railcars;
- and other improvements in support of this rail system such as lighting, fencing, and the construction of a locomotive maintenance building.

This work, a majority of which is being performed by Annex Railroad Builders, is scheduled for completion in December 1997.

Infrastructure development activities have also progressed off site in support of the eventual shipment of waste materials to the permitted commercial disposal facility.

Specifically, construction activities were initiated April 22, 1997, for upgrades to the Okeana Trestle, identified by CSXT as needing upgrades to safely support the proposed additional train traffic, which would be new to this branch line, because of the shipment of the Operable Unit 1 wastes.

By early July 1997, the subcontractor, Midwest Foundations, had completed the at/below-grade work necessary to support the steel superstructure improvements.

The subcontractor is currently performing steel fabrication work, and plans on initiating the process of replacing the wooden supports with steel supports sometime in late August 1997. Construction of the trestle upgrades is planned for completion by Oct. 31, 1997.

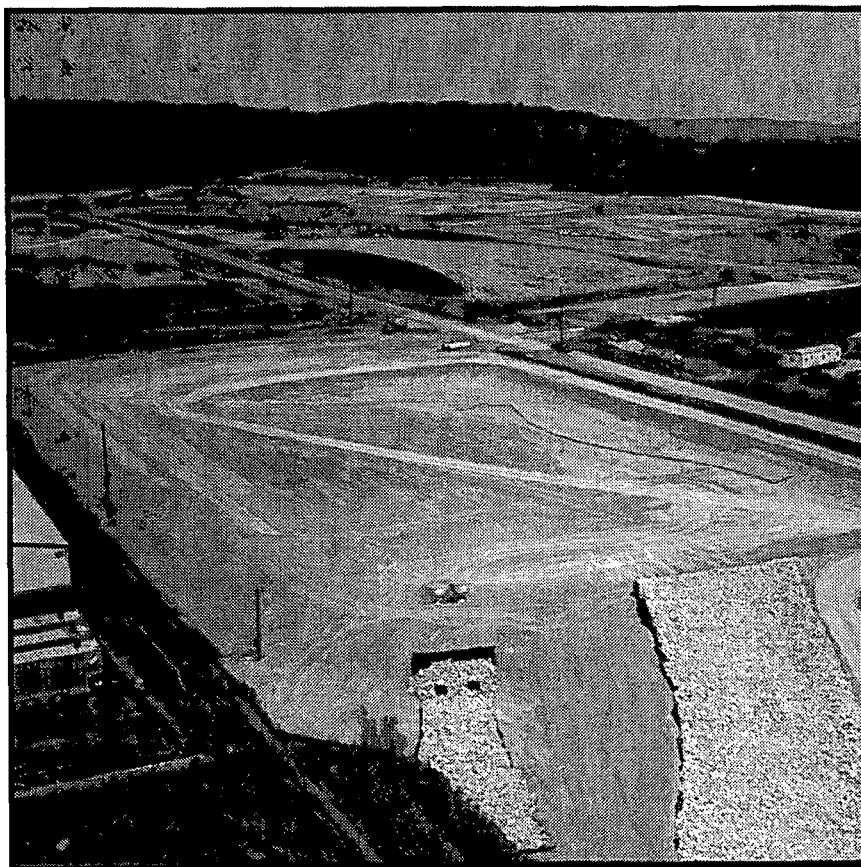
O_{n-Site}
Disposal
Facility
Project and
Soil
Characterization
Project
(Operable Unit 2)

August 1997

For More Information

Contact the Public Environmental Information Center (PEIC), Delta Building, 10995 Hamilton-Cleves Highway, Harrison, Ohio 45030 (phone: 513-648-7480 or -7481); or send an e-mail message to Rene_Eichhold@fernald.gov.

For specific questions regarding Operable Unit 2, contact Rod Warner, DOE-FEMP Operable Unit 2 branch chief, 513-648-3156, or send e-mail to Rod_Warner@fernald.gov.



The Phase I Sediment Basin is shown in the foreground of the On-Site Disposal Facility Construction Area (6633-28).

Description

Operable Unit 2 — the On-Site Disposal Facility (OSDF) Project and Soil Characterization and Excavation Project — include the Solid Waste Landfill, Lime Sludge Ponds, Inactive Fly Ash Pile, Active Fly Ash Pile, and South Field area.

Remedial Design

The design of the OSDF was completed July 14, 1997, when final approval was received from U.S. EPA. The design of the Haul Road and Rerouted North Entrance Road received final approval from U.S. EPA on Sept. 27, 1996, and Ohio EPA on Jan. 22, 1997.

Due to the various locations of the Operable Unit 2 waste units, the remedial action will be implemented in three separate parts: the Southern Waste Units (Inactive Fly Ash Pile, South Field, and Active Fly Ash Pile); the Lime Sludge Ponds; and the Solid Waste Landfill.

The majority of this material will be sent to the OSDF for disposal. The Pre-Final Design for the Southern Waste Units (also known as Area 2 Phase I) will be submitted to U.S. EPA and Ohio EPA on Oct. 20, 1997.

000007

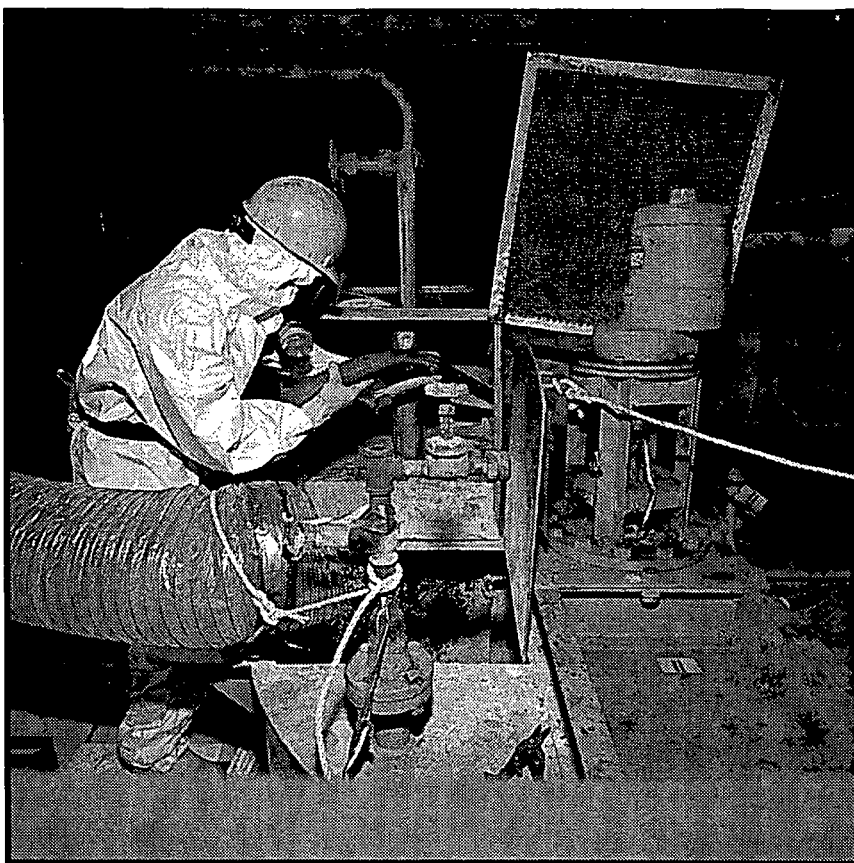
Facilities **C**losure **and** **D**emolition **P**roject (a portion of Operable Unit 3)

August 1997

For More Information

Contact the Public Environmental Information Center (PEIC), Delta Building, 10995 Hamilton-Cleves Highway, Harrison, Ohio 45030 (phone: 513-648-7480 or -7481); or send e-mail to Rene_Eichhold@fernald.gov.

For specific questions about FC&DP activities, contact DOE-FEMP Operable Unit 3 Team Leader John Trygier, 513-648-3154; or e-mail John_Trygier@fernald.gov.



A FEMP worker is vacuuming holdup material from a Lime Slurry Tank exhaust system. Safe Shutdown workers prepare buildings for decontamination and dismantling activities (6383-259).

Description

The Facilities Closure and Demolition Project (FC&DP) is responsible for the above-ground remediation of more than 200 former uranium processing facilities and equipment at the Fernald Environmental Management Project (FEMP).

When FEMP production ended in 1989, many production facilities, including process lines, drumming stations and equipment, still contained quantities of raw, intermediate and finished uranium products. The mission of FC&DP is to remove legacy nuclear materials currently stored in FEMP buildings, clean out the buildings and equipment, and decontaminate and dismantle (D&D) these facilities.

Operable Unit 3 Regulatory Agreements

To accelerate the D&D of contaminated, deteriorating buildings and structures, DOE and the U.S. Environmental Protection Agency (EPA) signed the *Operable Unit 3 Record of Decision for Interim Remedial Action* on July 22, 1994. The interim action shortened the decision-making process by several years and saved taxpayers millions of dollars.

On Sept. 24, 1996, U.S. EPA and DOE signed the *Operable Unit 3 Record of Decision for Final Remedial Action*. This record of decision addresses treatment and final disposition of contaminated materials generated by D&D activities.

000009

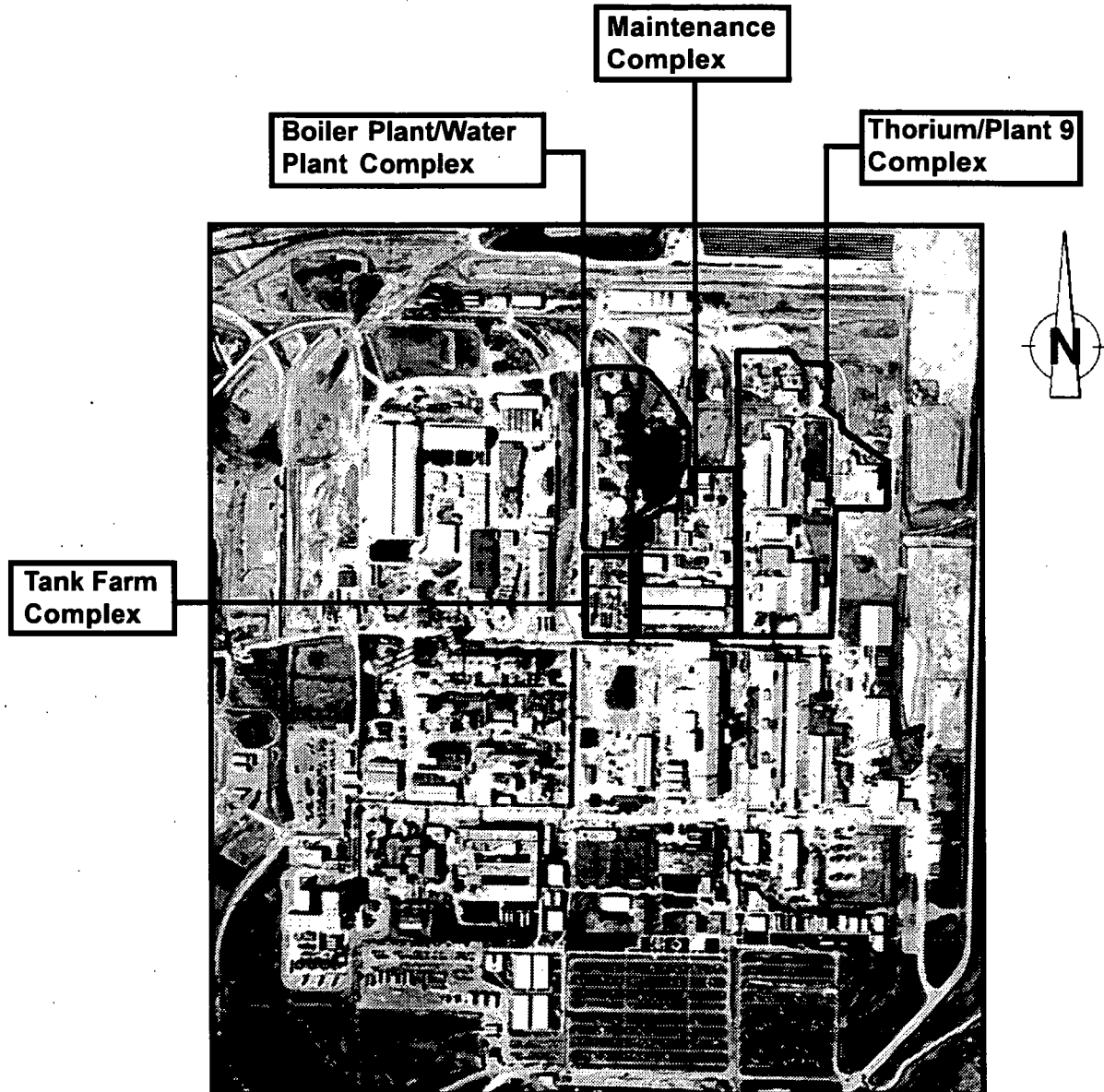
Thorium/Plant 9 Complex

U.S. EPA approved the Thorium/Plant 9 Complex Implementation Plan in August 1997. Fluor Daniel Fernald is on schedule to award the D&D subcontract, with DOE's approval, in September 1997. The selected subcontractor is currently scheduled to begin mobilizing in October 1997.

Future Projects

Following the Thorium/Plant 9 Complex D&D, the Tank Farm Complex and the Maintenance Complex D&D will begin. Due to their close proximity to each other, Fluor Daniel Fernald began designing these complexes as a single, integrated project to save time and money.

DOE anticipates submitting the Maintenance/Tank Farm Complex Implementation Plan to U.S. EPA by March 1998.

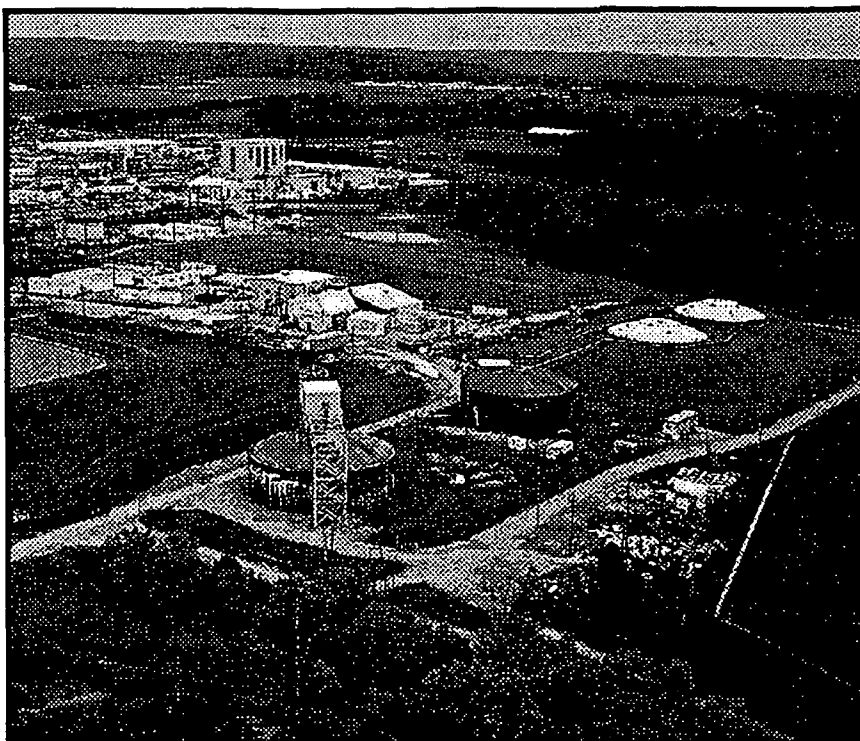


D&D activities are heavily focused in the northeast corner of the FEMP's former Production Area to allow for the timely excavation of the contaminated soils beneath those buildings (4713).

Silos

Pproject

(Operable Unit 4)



Located on the western periphery of the FEMP, Operable Unit 4 includes Silos 1 and 2 (K-65 Silos), Silo 3 (metal oxide silo), unused Silo 4, and ancillary structures, including the Vitrification Pilot Plant (6600-126).

August 1997

For More Information

Contact the Public Environmental Information Center (PEIC), Delta Building, 10995 Hamilton-Cleves Highway, Harrison, Ohio 45030 (phone: 513-648-7480 or -7481); or send an e-mail message to Rene_Eichhold@fernald.gov.

For specific questions about Operable Unit 4, contact Nina Akgunduz, DOE-FEMP Operable Unit 4 branch chief, 513-648-3110; or e-mail Nina_Akgunduz@fernald.gov.

Description

Operable Unit 4 -- the Silos Project -- is one of five areas being remediated at the U.S. Department of Energy's Fernald Environmental Management Project (FEMP). Each operable unit was defined based on its location or the potential for similar technologies to be used in the ultimate cleanup.

Located on the western periphery of the FEMP, Operable Unit 4 includes Silos 1 and 2 (K-65 Silos), Silo 3 (metal oxide silo), unused Silo 4, and ancillary structures. Operable Unit 4 remediation will address these structures, as well as any contaminated soils within the geographic boundary, and any contaminated perched groundwater encountered during Operable Unit 4 remedial activities.

Silos 1 and 2, commonly called the "K-65 Silos," contain radium-bearing, low-level radioactive wastes dating back to the 1950s. In 1964, the two silos were reinforced with an earthen berm, which was upgraded in 1983.

Other improvements include a 30-foot cap on top of the silo domes, installed for added protection, and a polyurethane foam coating applied over the domes for weather protection.

A silo headspace radon treatment system was also constructed, and radon monitors were installed around the FEMP boundary and in the immediate vicinity of Silos 1 and 2. Silo 3 contains dried uranium- and thorium-bearing wastes. Silo 4 is empty.

000012

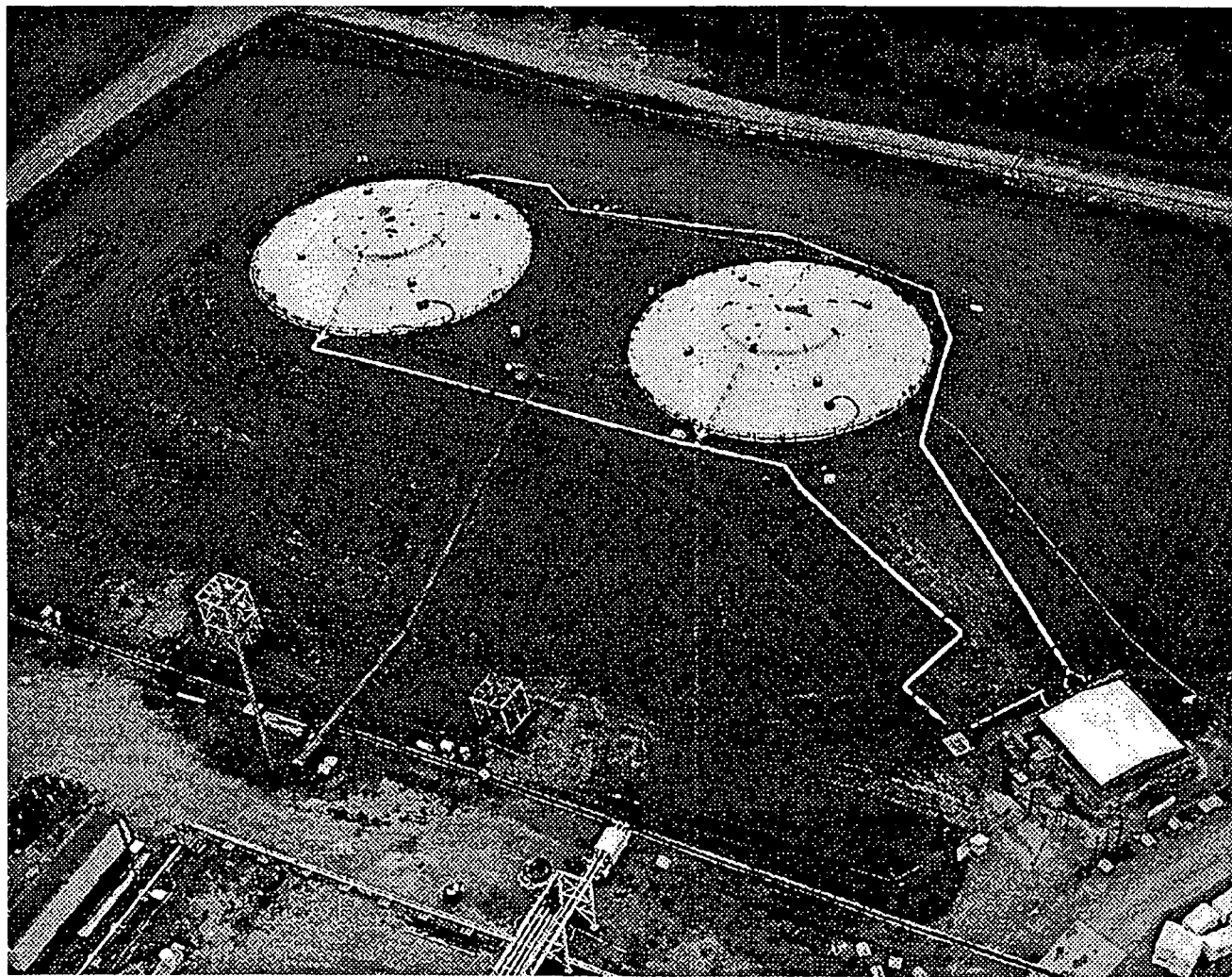
After the waste removal is complete, the interior surface of Silo 3 (walls, roof, and floor) shall be coated with material to permanently "fix" any remaining radioactive contamination.

Concrete foundations, Silo 3, and any permanent attachments to Silo 3 that, if removed, would jeopardize structural integrity or ability to maintain confinement of the silo, will not be demolished until a later time.

Silos 1 and 2 Path Forward

The Silos 1 and 2 path forward is to formally re-evaluate the selected remedy of vitrification through a record-of-decision (ROD) amendment. This process begins with an initial screening of stabilization technologies to provide an appropriate range of options for more-detailed consideration. "Proof of Principle," or Phase I testing, would then be awarded (scheduled for fiscal year 1998) to multiple vendors who have proposed a technology that has passed the screening process and have been pre-qualified to perform the Phase II subcontract (full-scale remediation).

"Proof of Principle" testing will establish that the vendor's proposed process will be effective in stabilizing the silo waste. Additionally, "Proof of Principle" testing will provide the vendors confidence in their ability to stabilize the silo residues, as well as empirical data to support their Phase II (full-scale remediation) proposal. Data from the "Proof of Principle" testing will be provided in each vendor's final reports.



Silos 1 and 2, commonly called the "K-65 Silos," contain radium-bearing, low-level radioactive wastes dating back to the 1950s. In 1964, the two silos were reinforced with an earthen berm, which was upgraded in 1983.

A_{quifer}

R_{estoration}

P_{roject}

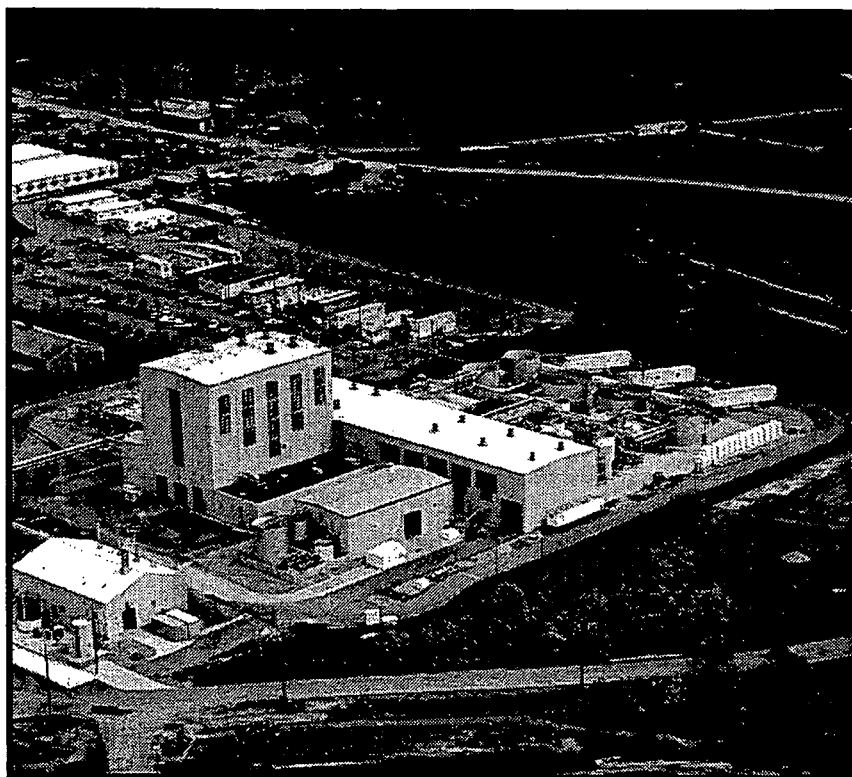
**(Operable
Unit 5)**

August 1997

For More Information

Contact the Public Environmental Information Center (PEIC), Delta Building, 10995 Hamilton-Cleves Highway, Harrison, Ohio 45030 (phone: 513-648-7480 or -7481); or send an e-mail message to Rene_Eichhold@fernald.gov.

For specific questions about Operable Unit 5, contact Rob Janke, DOE-FEMP Operable Unit 5 branch chief, 513-648-3124; or e-mail Rob_Janke@fernald.gov.



The Advanced Wastewater Treatment Facility is currently being expanded to handle additional groundwater treatment needs beginning in 1998 (6600-134).

Description

Operable Unit 5 is one of five areas being remediated at DOE's Fernald Environmental Management Project (FEMP). Each operable unit was defined based on its location or the potential for similar technologies to be used in the ultimate cleanup.

Operable Unit 5 consists of the remediation of environmental media at the FEMP. The Aquifer Restoration and Wastewater Treatment Project (ARWWP) is that portion of Operable Unit 5 that pertains to the remediation of the affected areas of the Great Miami Aquifer and the treatment of all site wastewater.

Selected Remedy for the Great Miami Aquifer

The remedy for the Great Miami Aquifer is defined in the *Record of Decision for Remedial Actions at Operable Unit 5*, which was signed by the U.S. Environmental Protection Agency (EPA) in January 1996.

To remediate the Great Miami Aquifer, it was planned that areas of groundwater contamination exceeding final remediation levels would be cleaned in 27 years using groundwater extraction and treatment technology, with the understanding that DOE would evaluate appropriate and innovative technologies in an effort to accelerate the aquifer restoration.

Wastewater Treatment

An extensive system for wastewater conveyance, holding, treatment and discharge has been developed at the FEMP over the past several years to meet treated effluent discharge requirements established in the site's National Pollutant Discharge Elimination System permit and in the Operable Unit 5 record of decision.

The following water treatment facilities are currently operating at the FEMP:

- Advanced Wastewater Treatment Facility (AWWT) Phase I;
- AWWT Phase II;
- Interim Advanced Wastewater Treatment Facility (IAWWT);
- South Plume Interim Treatment (SPIT) System;
- Volatile Organic Compound (VOC) Wastewater Treatment System; and
- Sewage Treatment Plant (STP).

These facilities treat the following categories of wastewater:

- Controlled surface water run-off from the more highly contaminated areas of the FEMP;
- Remediation wastewater;
- Groundwater; and
- Sanitary wastewater.

Combined, these facilities currently treat approximately 50 million gallons of wastewater per month.

A major expansion of the AWWT system is currently under way. This expansion is being completed to handle the additional groundwater treatment needs as the new groundwater remediation wells come online in 1998.

Progress Update

The wells for the South Field Phase I and Re-Injection Demonstration Modules have been installed. Over the next several months, the surface piping and facilities to operate the wells will be constructed. The FEMP has also completed improvements to existing water treatment facilities.

Installation of multimedia filters have increased flow to the treatment facilities and enhanced uranium removal capabilities. A slurry-dewatering system was completed in the fall of 1996 to provide dewatering of sludge from the water treatment processes.

Work on a treatment resin regeneration system is being completed. Work on the expansion of the Advanced Wastewater Treatment Facility (AWWT) continues.

The strategy for operation of the three groundwater restoration modules and associated water treatment facilities is presented in the Operations and Maintenance Master Plan for the Aquifer Restoration and Wastewater Treatment Project.

The initial draft of this plan was submitted to U.S. EPA for review and approval in July 1997. DOE will be working with U.S. EPA during the next few months to finalize the plan.

**AQUIFER RESTORATION AND
WASTEWATER TREATMENT PROJECTS**

Summary Fact Sheets

August 7, 1997

**South Plume Removal Action
Summary Fact Sheet
August 1997**

- ▶ In 1993, five groundwater extraction wells were installed at the leading edge of the off-property South Plume as part of the South Plume Removal Action (SPRA).
- ▶ The SPRA well system began pumping in August 1993.
- ▶ The primary intent of this well system is to prevent the further migration of the off-property portion of the groundwater uranium plume.
- ▶ Recovery Well 5 was taken out of service in 1995 as it is not required to maintain capture of the contamination plume.
- ▶ The original diameter of each well was 12 inches, except for RW-4 which is 16 inches. Recovery Wells 1 and 3 have since had new smaller (i.e., 10 inch) screens installed inside of the original screen because of holes in the original screens.
- ▶ The pumps in each well have a range of operation from approximately 250 gpm to 500 gpm. Individual pumps are currently operating at 300 gpm to 400 gpm. The current target pumping rate for the four wells combined is 1,400 gpm.
- ▶ Groundwater from each well is combined into a single discharge line where it is pumped on-property for treatment/discharge to the Great Miami River.
- ▶ The SPRA represents a key component of the overall groundwater restoration program.
- ▶ Total gallons pumped from August 1993 through June 1997 was 2.3 billion gallons.
- ▶ Uranium removed from the aquifer from August 1993 through June 1997 was 334 pounds.
- ▶ The average concentration of uranium extracted from each recovery well between January 1, 1997 and June 30, 1997 was:
 - ▶ Recovery Well 1 - 42 ppb
 - ▶ Recovery Well 2 - 28 ppb
 - ▶ Recovery Well 3 - 11 ppb
 - ▶ Recovery Well 4 - 1.2 ppb

- ▶ The 2,900 gpm AWWT Facility treatment design capacity represents (on an annual average):
 - ▶ 750 gpm design surface water treatment capacity and 600 gpm nominal through put.
 - ▶ 2,150 gpm design groundwater treatment capacity and 1,720 gpm nominal through put.

**South Field Extraction System
Summary Fact Sheet
August 1997**

The South Field Extraction System (SFES) is comprised of two phases -- Phase I and Phase II.

SFES Phase I:

- ▶ SFES Phase I consist of ten wells which were installed on-property in the vicinity of the Southfield/storm sewer outfall ditch (SSOD).
- ▶ Each well was designed and constructed in an above grade configuration, with piping and controls above ground surface.
- ▶ The ten extraction wells are designed to remove contaminated groundwater from the Southfield area of the FEMP where uranium groundwater contamination levels, are in places, greater than 1000 ppb.
- ▶ The inside diameter of each of the ten extraction wells is 12 inches.
- ▶ Remaining Phase I work includes the installation of new electrical high voltage power service, approximately 6,000 feet of trenching, and the placement of 12,000 feet of HDPE piping.
- ▶ Each well will have a variable speed submersible pump with a pumping capacity of 100 gpm to 300 gpm per well.
- ▶ Gravel roadways will be installed to allow easy access to the Phase I wells.
- ▶ Each well will have a well house to provide for the associated instrumentation and controls.
- ▶ Discharge piping from each well will direct extracted groundwater to either treatment or the Great Miami River through a double-header piping assembly associated with each well.
- ▶ The SFES Phase I design work was completed in June 1997 with the construction contract scheduled to be awarded in August 1997. Construction activities are scheduled to be complete by April 1998.
- ▶ After construction activities and systems testing are complete, a standard startup review (SSR) will be conducted to ensure all operations preparations are in order, including procedures and maintenance plans.
- ▶ SFES Phase I start-up is scheduled to begin operations on September 30, 1998, as outlined in the OU-5 Final Remedial Action Work Plan for Aquifer Restoration.

**South Plume Optimization
Summary Fact Sheet
August 1997**

- ▶ The purpose of the South Plume Optimization Extraction Wells, together with the existing SPRA wells, is to restore the off-property portion of the Great Miami Aquifer plume at Fernald as quickly and cost effectively as possible.
- ▶ The South Plume Optimization Project is comprised of two extraction wells (i.e., RW- 6 and RW-7) located on private property immediately south of the FEMP.
- ▶ A potential third extraction well (RW-8) has been identified as a contingency extraction well to be utilized in the future if conditions warrant (see the Baseline Remedial Strategy Report, April 1997 outlining the necessary conditions).
- ▶ To minimize landowner disruptions and inconveniences, the optimization wells will be installed as "flush mount" wells, meaning that the top of the well head assembly will be flush with the surrounding ground surface.
- ▶ Design of the South Plume Optimization Project was completed in May 1997. The construction sub-contract is scheduled to be awarded in August 1997.
- ▶ Construction activities include drilling two extraction wells, approximately 800 feet of trenching, and placement of 1,800 feet of HDPE piping.
- ▶ Each extraction well will have a submersible pump, capable of pumping at a rate of approximately 250 gpm. It is anticipated that the discharge line from each well will be tied into the existing South Plume Force Main.
- ▶ Electrical service will be provided to each extraction well via underground utilities.
- ▶ Piping and electrical service will be constructed such that the contingency extraction well (RW-8) can be more easily installed if necessary.
- ▶ A new valve house may be installed in the South Plume area to house control valves and flow meters.
- ▶ Construction activities are scheduled to be complete by April 1998.
- ▶ After construction activities and systems testing are complete, a standard startup review (SSR) will be conducted to ensure all operations preparations are in order, including procedures and maintenance plans.
- ▶ Start-up of operations on September 1, 1998 is identified as a milestone in the OU-5 Final Remedial Action Work Plan for Aquifer Restoration.

**South Field Re-Injection System
Summary Fact Sheet
August 1997**

- ▶ The South Field Re-Injection System will only be implemented if the Re-Injection Demonstration Project is successful.
- ▶ This module includes the re-injection wells planned to enhance uranium removal from the South Field Area.
- ▶ The project is anticipated to include the installation of five injection wells and converting four extraction wells to injection wells.
- ▶ Construction of this project also includes a 100 horsepower pump, approximately 4,000 feet of trenching and placement of HDPE piping, instrumentation, and controls.
- ▶ The size of the wells will be determined upon knowledge gained from the Re-Injection Demonstration Project.
- ▶ Treated groundwater will be used as the source water for re-injection.
- ▶ The construction contract for this project is scheduled to be awarded by December 2002 with construction activities scheduled for completion by August 2003. Operations are scheduled to begin in October 2003.
- ▶ After construction activities and systems testing are complete, a standard startup review (SSR) will be conducted to ensure all operations preparations are in order, including procedures and maintenance plans.

**Plant 6 Area Extraction System
Summary Fact Sheet
August 1997**

- ▶ Plant 6 Area Extraction System will recover contaminants in the Great Miami Aquifer located beneath and east of Plant 6, which is located in the southeastern portion of the FEMP's former production area.
- ▶ This project is anticipated to consist of two extraction wells located in the Plant 6 area with each well pumping at a maximum rate of 300 gpm.
- ▶ This project will be initiated after the D&D of Plant 6 and excavation of underlying contaminated soils has been complete.
- ▶ Construction of this project is anticipated to include installation of two extraction wells, 3,300 feet of trenching and placement of HDPE piping.
- ▶ Each well is anticipated to be equipped with a submersible pump and electrical service to power the pumps.
- ▶ Both wells are designed to be installed in an above grade configuration meaning that most piping and controls will be above ground surface.
- ▶ Each well may have its own well house to house the instrumentation and controls.
- ▶ The diameter of each well is anticipated to be 12 inches.
- ▶ The construction contract for this project is scheduled to be awarded by March 2003 with construction activities scheduled for completion by August 2003. Operations are scheduled to begin in October 2003.
- ▶ After construction activities and systems testing are complete, a standard startup review (SSR) will be conducted to ensure all operations preparations are in order, including procedures and maintenance plans.



CLEANUP PROGRESS BRIEFING FORMAT

FERNALD

Part I: All Cleanup Projects

- **Big Picture Schedule and Status**
- **Status and Projection of Upcoming Activities by Operable Unit/Project**
 - Ongoing field work and field work over next 90 days
 - Status of draft deliverables and documents approved since last briefing
- **Public Involvement Planning and Interaction**

Part II: "Topic of the Month"

- **More thorough discussion of specific topics based on public interest**
 - Sept. 9 Topic of the Month is the On-Site Disposal Facility
- **Public Involvement Planning and Interaction**

PUBLIC MEETINGS/WORKSHOPS FOR 1997 (some TBD)

JANUARY 7 CRO Meeting 11 Citizens Task Force 22 STCG 23 FRESH	FEBRUARY 4 CRO Meeting 12 IRT Availability Session 12,13 Health Effects Subcommittee 26 IRT Public Briefing	MARCH 4 CRO Meeting 13 CTF/FRESH & DOE/FDF 15 Citizens Task Force 18 STCG 19 CP&T
APRIL 1 CRO Meeting 3 FRESH 15 DOE Community Mtg. 22 DOE 10-Year Plan Mtg.	MAY 6 CRO Meeting 7 WM Subcommittee 7,8 Health Effects Subcommittee 10 Task Force 14 Silos Project Workshop 20 Joint Response 21 CP&T Mtg. 21 EM Subcommittee 22 FRESH 27 OU2/OU5 Workshop	JUNE 3 Silos Project Wkshp. - Nevada 3 CRO Meeting 9 WM Subcommittee 10 STCG 12 MPN/FRESH Roadshow 16 Silos Project Workshop 23 Accelerated Cleanup Plan/Budget 24 OSDF Roundtable
JULY 7 Efficiency Committee 8 Recycling Methodology 9 Citizens Task Force 14 Public Involvement Workshop 16 CP&T 22 A. Alm Video Conference 23 STCG 23 EM & Efficiency Subcommittees 24 FRESH 29 Silos Project Workshop	AUGUST 7 Water/Soils Project 12 Community Meeting 20,21 Health Effects Subcommittee 26 USEPA Workshop on OU4 Dispute Resolution	SEPTEMBER 2 CRO Meeting 5,6 National Dialogue 9 Cleanup Progress Briefing 17 CP&T 17 Efficiency Committee 20 Citizens Advisory Board 25 FRESH 24 STCG TBD Natural Resources Workshop
OCTOBER 2 & 3 National Stakeholder Meeting 14 Cleanup Progress Briefing 7 CRO Meeting TBD OUI/ARASA	NOVEMBER 4 CRO Meeting 15 Citizens Advisory Board 19 CP&T 20 FRESH TBD STCG TBD Community Meeting TBD Health Effects Subcommittee	DECEMBER 2 CRO Meeting

For more information, please call Gary Stegner at 648-3153.



CLEANUP PROGRESS BRIEFING FORMAT

FERNALD

Part I: All Cleanup Projects

- **Big Picture Schedule and Status**
- **Status and Projection of Upcoming Activities by Operable Unit/Project**
 - Ongoing field work and field work over next 90 days
 - Status of draft deliverables and documents approved since last briefing
- **Public Involvement Planning and Interaction**

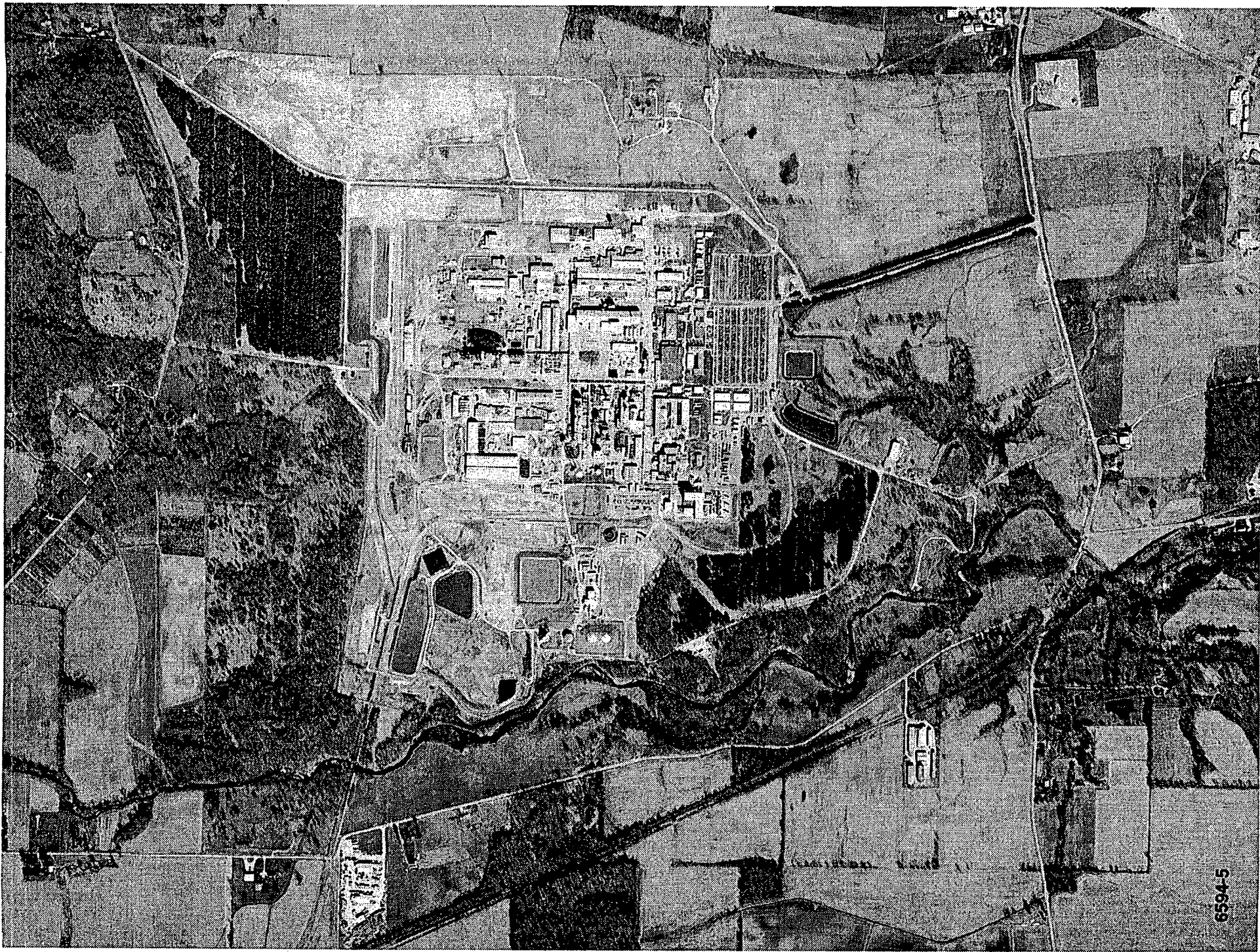
Part II: "Topic of the Month"

- **More thorough discussion of specific topics based on public interest**
 - Sept. 9 Topic of the Month is the On-Site Disposal Facility
- **Public Involvement Planning and Interaction**

PUBLIC MEETINGS/WORKSHOPS FOR 1997 (some TBD)

<p>JANUARY</p> <p>7 CRO Meeting 11 Citizens Task Force 22 STCG 23 FRESH</p>	<p>FEBRUARY</p> <p>4 CRO Meeting 12 IRT Availability Session 12,13 Health Effects Subcommittee 26 IRT Public Briefing</p>	<p>MARCH</p> <p>4 CRO Meeting 13 CTF/FRESH & DOE/FDF 15 Citizens Task Force 18 STCG 19 CP&T</p>
<p>APRIL</p> <p>1 CRO Meeting 3 FRESH 15 DOE Community Mtg. 22 DOE 10-Year Plan Mtg.</p>	<p>MAY</p> <p>6 CRO Meeting 7 WM Subcommittee 7,8 Health Effects Subcommittee 10 Task Force 14 Silos Project Workshop 20 Joint Response 21 CP&T Mtg. 21 EM Subcommittee 22 FRESH 27 OU2/OU5 Workshop</p>	<p>JUNE</p> <p>3 Silos Project Wkshp. - Nevada 3 CRO Meeting 9 WM Subcommittee 10 STCG 12 MPN/FRESH Roadshow 16 Silos Project Workshop 23 Accelerated Cleanup Plan/Budget 24 OSDf Roundtable</p>
<p>JULY</p> <p>7 Efficiency Committee 8 Recycling Methodology 9 Citizens Task Force 14 Public Involvement Workshop 16 CP&T 22 A. Alm Video Conference 23 STCG 23 EM & Efficiency Subcommittees 24 FRESH 29 Silos Project Workshop</p>	<p>AUGUST</p> <p>7 Water/Soils Project 12 Community Meeting 20,21 Health Effects Subcommittee 26 USEPA Workshop on OU4 Dispute Resolution</p>	<p>SEPTEMBER</p> <p>2 CRO Meeting 5,6 National Dialogue 9 Cleanup Progress Briefing 17 CP&T 17 Efficiency Committee 20 Citizens Advisory Board 25 FRESH 24 STCG TBD Natural Resources Workshop</p>
<p>OCTOBER</p> <p>2 & 3 National Stakeholder Meeting 14 Cleanup Progress Briefing 7 CRO Meeting TBD OUI/ARASA</p>	<p>NOVEMBER</p> <p>4 CRO Meeting 15 Citizens Advisory Board 19 CP&T 20 FRESH TBD STCG TBD Community Meeting TBD Health Effects Subcommittee</p>	<p>DECEMBER</p> <p>2 CRO Meeting</p>
<p>For more information, please call Gary Stegner at 648-3153.</p>		

August 11, 1997





OPERABLE UNIT 1

Waste Pits Remedial Action Project

FERNALD

Procurement Action for Alternative Remedial Action Subcontracting Approach (ARASA)

- **Proposals received from vendors** 4/4/97
- **Received Best & Final Offers** 6/17/97
- **Award planned for** 9/97

Okeana Trestle Upgrades

- **Construction of upgrades initiated** 4/22/97
- **Initiate replacement of wooden members with steel members** 8/21/97
- **Completion due** 10/31/97

On-Site Rail Improvements

- **Includes installation of 17,500 feet of rail, and switches and turnouts, with storage capacity for 135 cars, is approximately 60% complete**
- **Initiated upgrades of Paddy's Run Trestle (on-site)** 6/18/97
- **Completion due** 12/9/97

Site Improvement Activities

- **Completed "original" north access road upgrades** 6/11/97
- **Completed all site preparation activities in future waste pit process area** 7/31/97
- **Completion due** 9/16/97

Graphics 4681. 1 8/97

000036

947



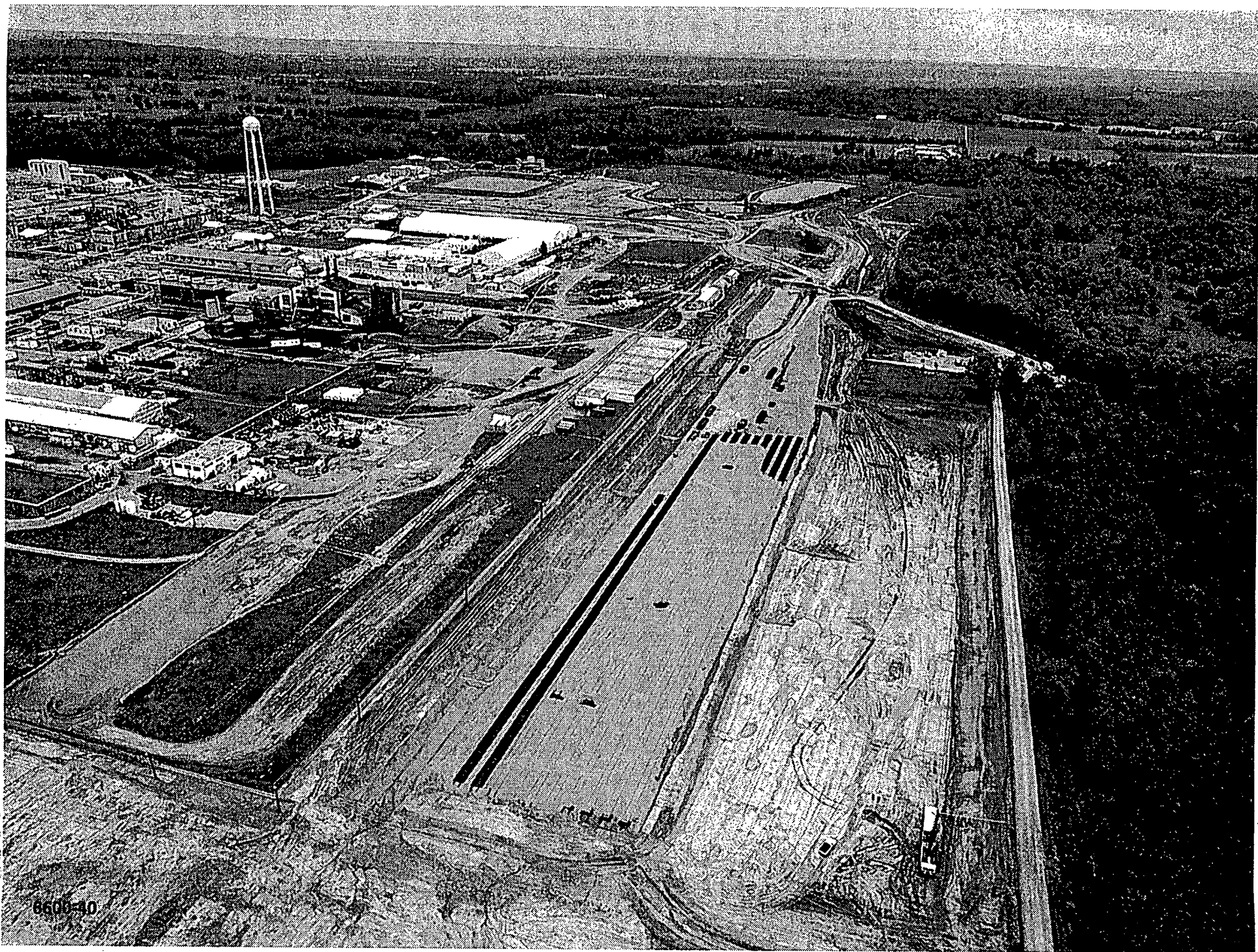
000037

6600-101



000033

6600-169



000029

6600-40



6349-898



OPERABLE UNIT 2

On-Site Disposal Facility

FERNALD

On-Site Disposal Facility (OSDF)

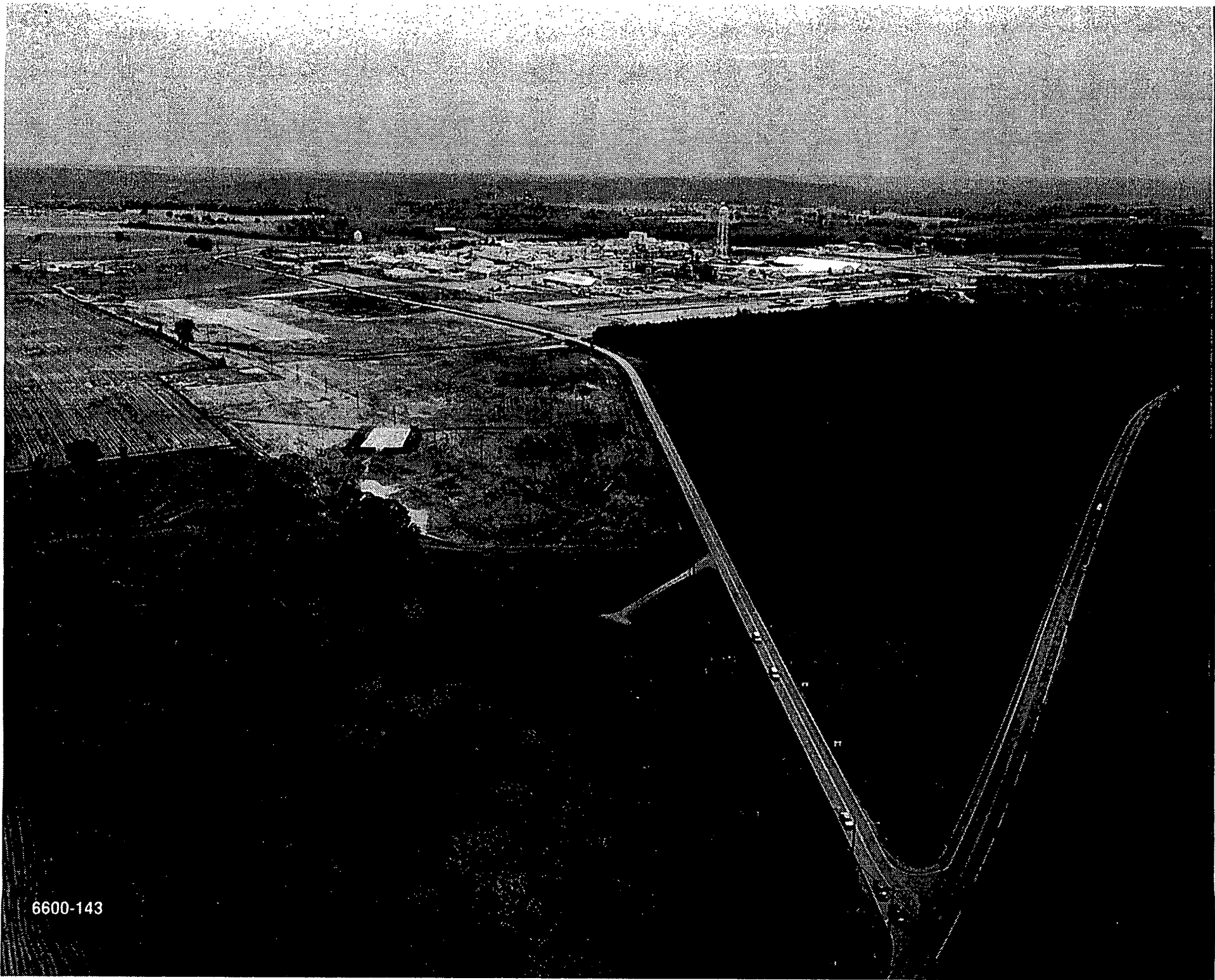
- **Started construction of the OSDF Leachate Conveyance System** 4/7/97
- **Began construction of OSDF Cell 1** 6/20/97
- **Cell 1 footprint completion** 10/97
- **Initiate Cell 2 footprint** 9/97

Haul Road

- **Construction of Haul Road continued in the area of the Southern Waste Units (west side of the FEMP) and northern Production Area**
- **Complete construction of Haul Road** 11/30/97

Rerouted North Entrance Road

- **Closed existing North Entrance Road** 7/1/97
- **Began construction of the Rerouted North Entrance Road** 7/1/97
- **New access road to open** 10/31/97



6600-143



OPERABLE UNIT 3 Facilities Closure & Demolition

FERNALD

OU3 Integrated RD/RA Work Plan

- Received U.S. EPA Approval
- Issued Final Work Plan

6/11/97

6/19/97

Safe Shutdown

- Completed Safe Shutdown of the Incinerator at the Sewage Treatment Plant (six weeks ahead of schedule)
- Continue Safe Shutdown of Plant 2/3
 - Expected completion

7/18/97

In Progress

6/98

Plant 1 D&D

- Completed Field Activities
- Submit Draft Project Completion Report to EPAs

6/27/97

8/97

000043



OPERABLE UNIT 3

Facilities Closure & Demolition

FERNALD

Boiler Plant/Water Plant D&D

- Contractor Mobilized
- Initiated Asbestos Abatement
- Expected completion

5/5/97

6/2/97

9/98

Thorium/Plant 9

- Received Ohio EPA Approval of Implementation Plan
- Received U.S. EPA Approval for Final Implementation Plan
- Issued Request For Proposal
- Received Proposals
- Anticipate Contract Award

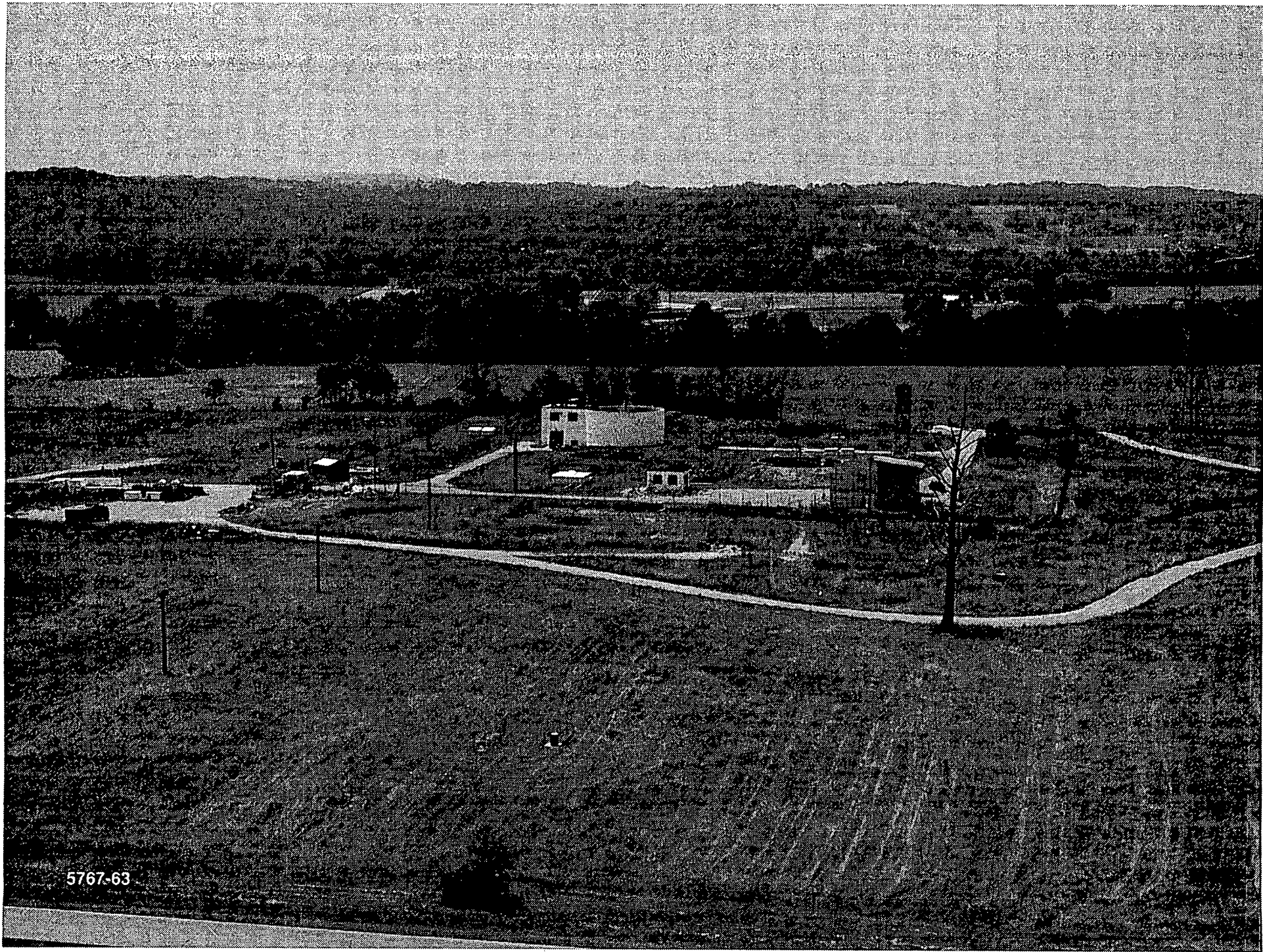
5/9/97

8/97

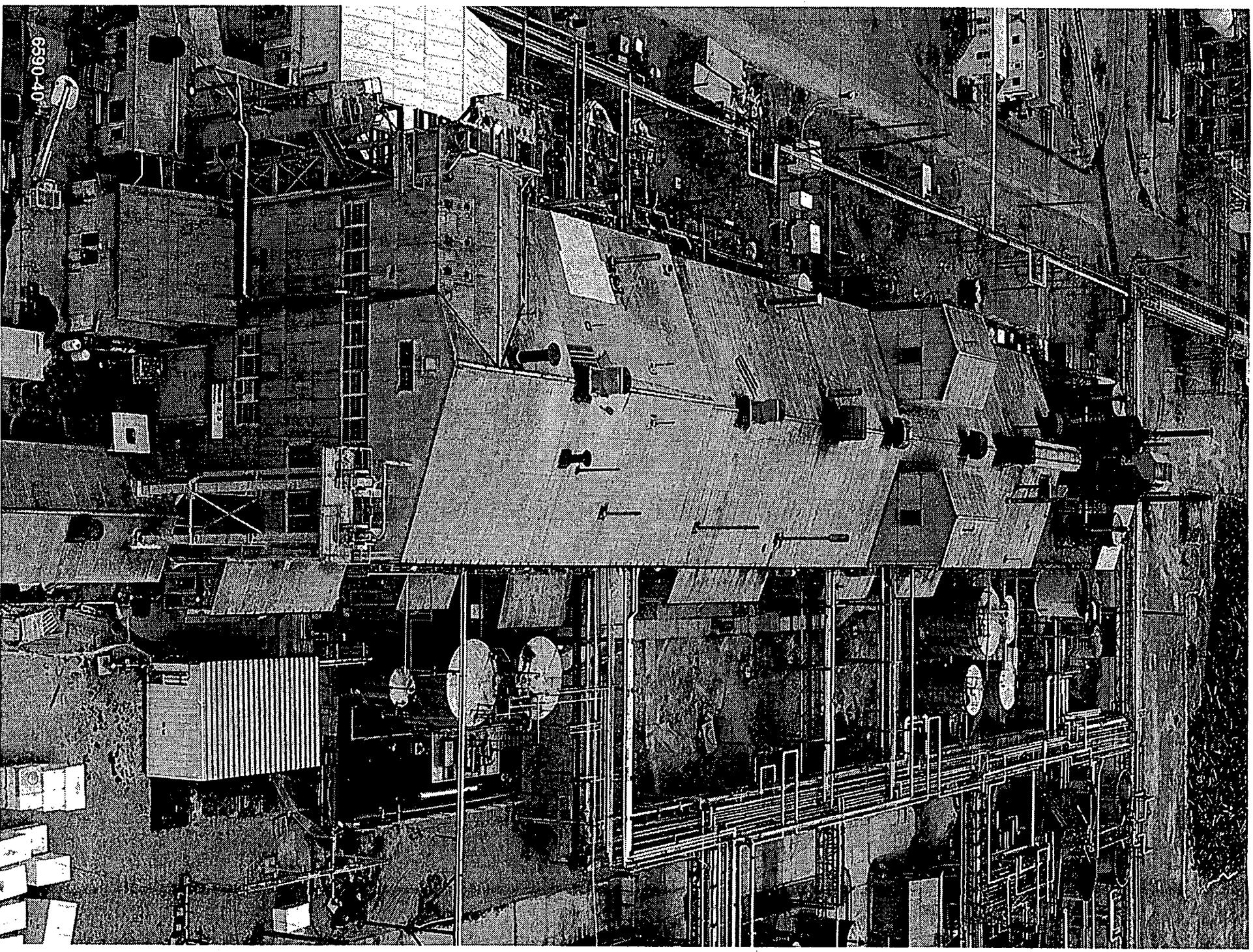
5/1/97

6/17/97

9/97

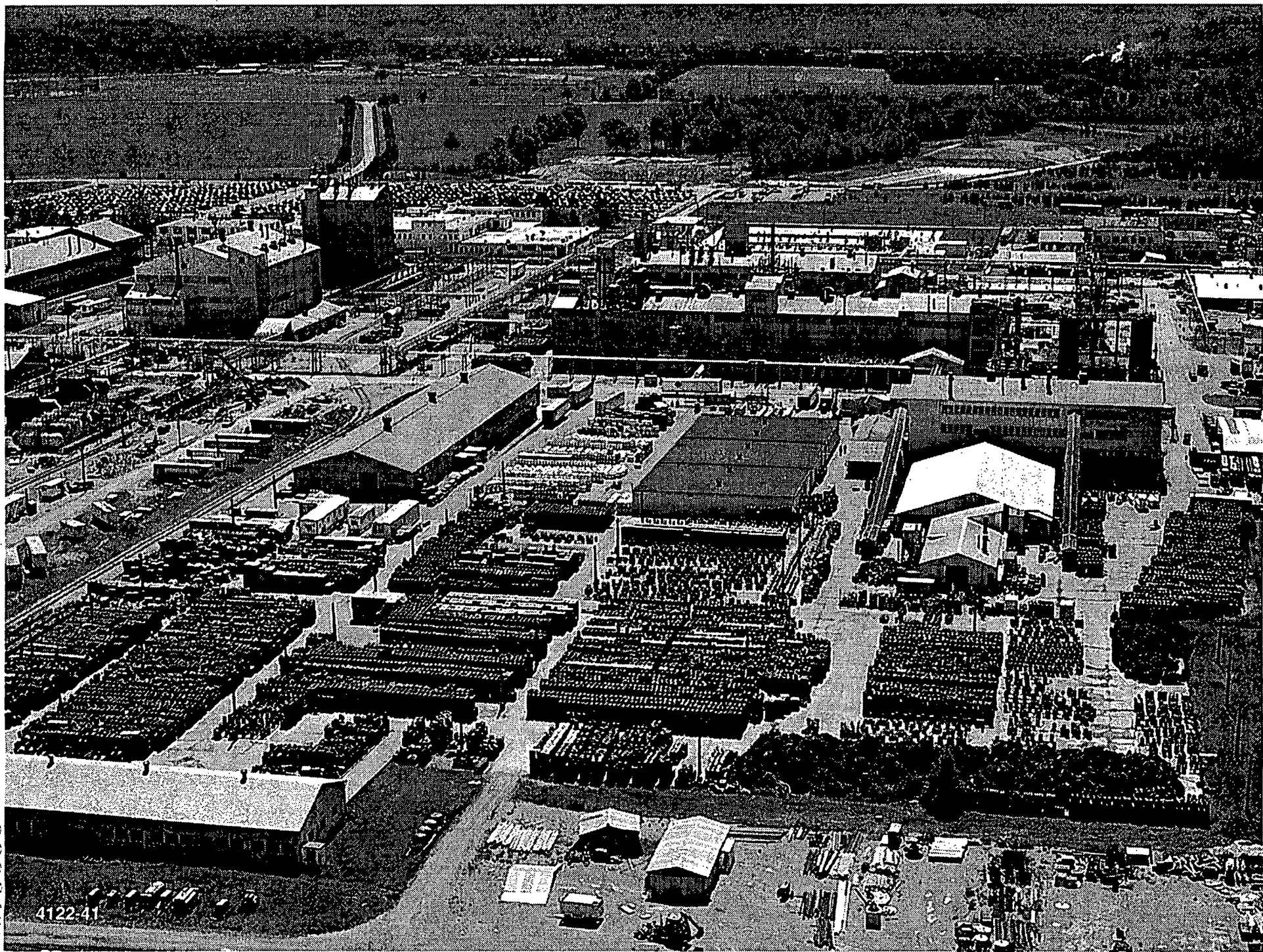


5767-63



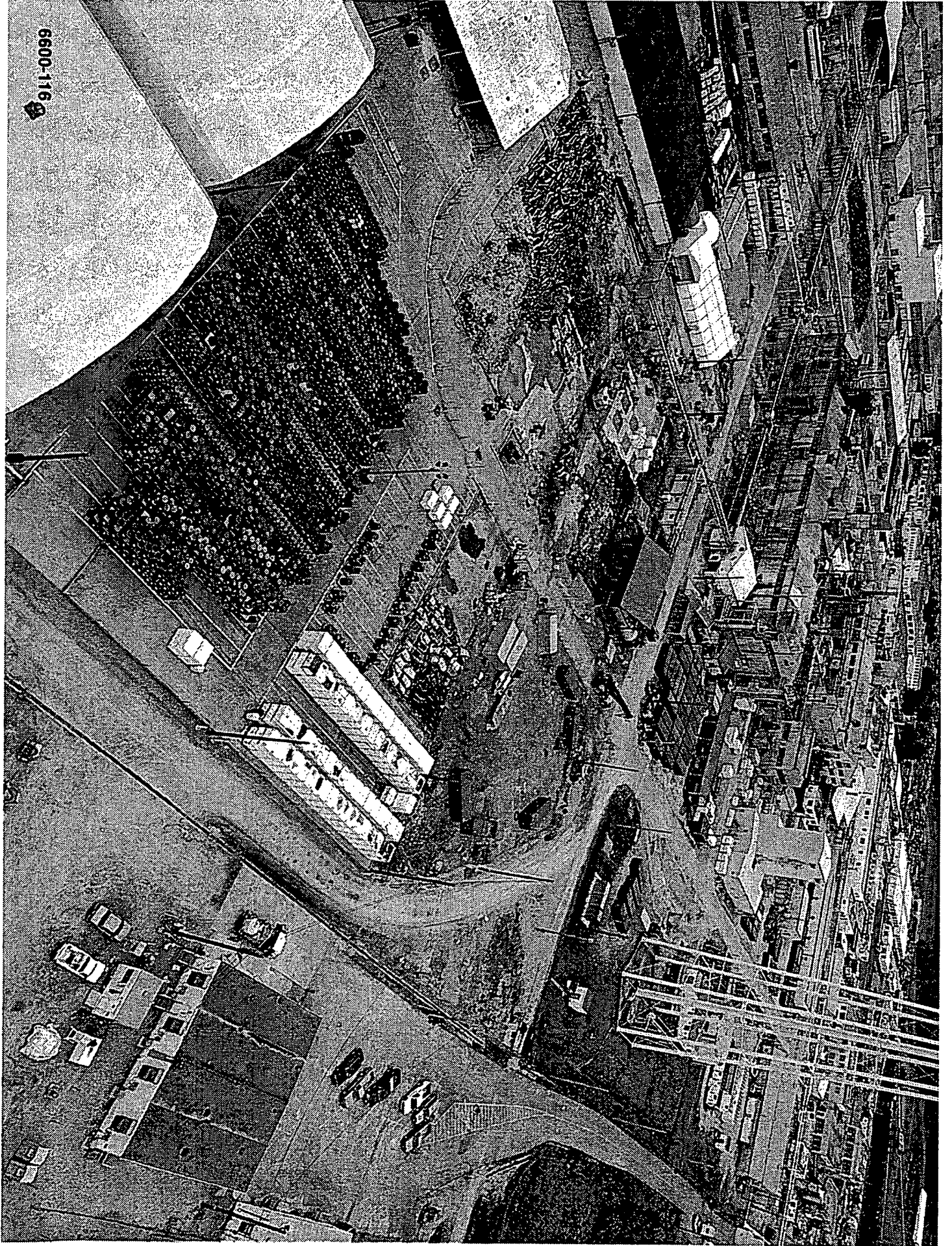
6590-40

000046



000047

4122-41



6600-116



OPERABLE UNIT 4 Silos Project

FERNALD

Dispute Resolution Status:

- Settlement Agreement resolving the Operable Unit 4 dispute:

Signed by DOE

7/14/97

Signed by U.S. EPA

7/22/97

- Key Elements

- The following milestones have been established:

1) Submit Silo 3 Explanation of Significant Differences (ESD) to EPA

9/15/97

2) Award multi-tech proof of principle contracts for Silos 1 & 2

8/10/98

3) Submit Draft Supplemental FS/PP to EPA

2/1/00

4) Submit Draft ROD Amendment to EPA

12/29/00

- Five (5) Supplemental Projects

- Monetary Penalty (\$100,000)

Silos Project Current Status

- Silos 1 and 2

- Vitrification Pilot Plant (VITPP) idle following melter incident

- VITPP Facility Shutdown Plan in preparation

- Replan in progress to execute work in accordance with the Settlement Agreement

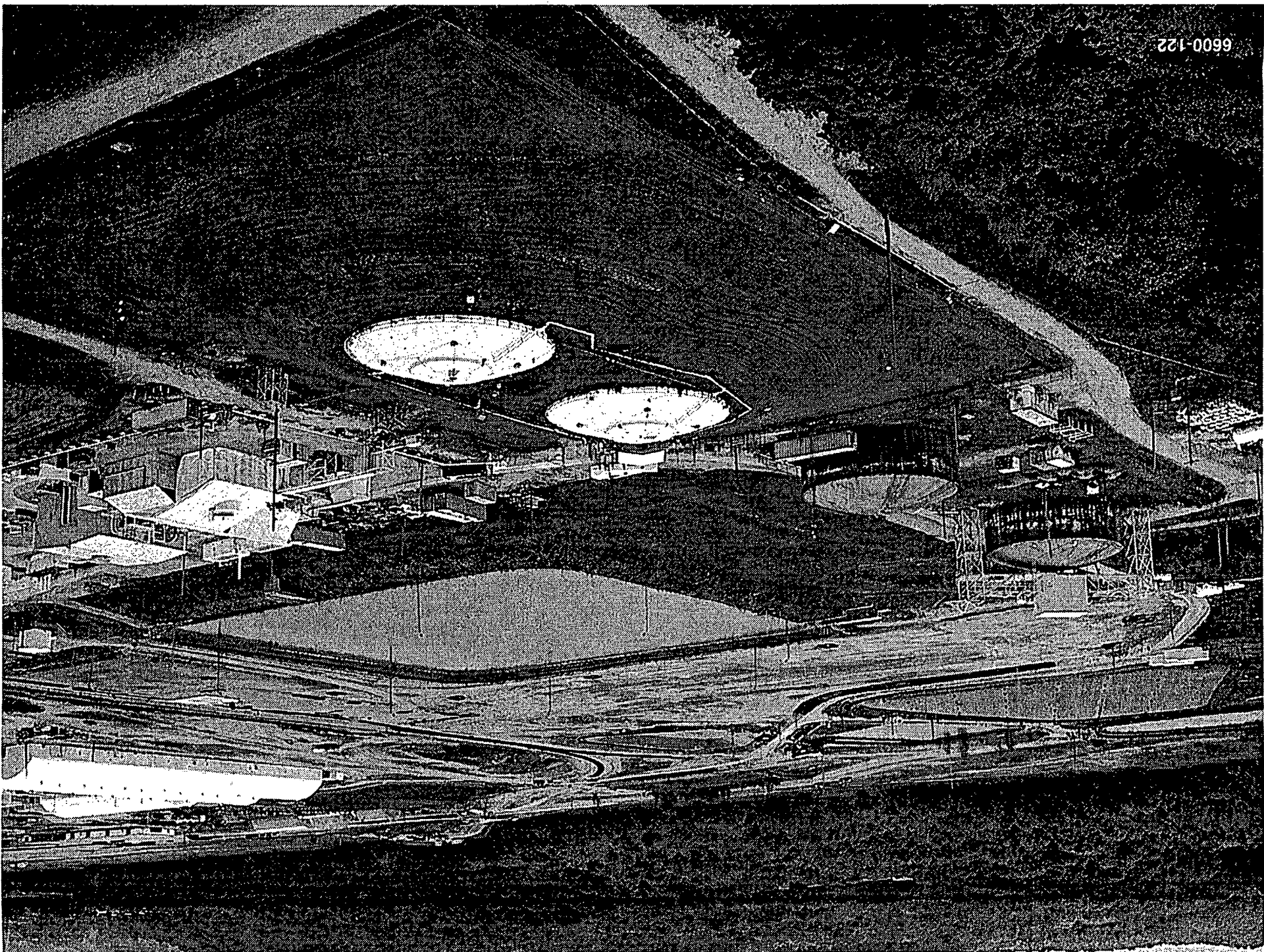
- Silo 3

- Draft Request for Proposal (RFP) undergoing internal review

- Issue Draft RFP by September 30, 1997

- Draft ESD in internal review

Graphics 4681. 5 8/97





OPERABLE UNIT 5 Aquifer Restoration Project/Soils Characterization and Excavation Project

FERNALD

Aquifer Restoration Project (ARP)

- **South Field Extraction System Project:**
 - Installation of 10 wells completed 8/97
- **South Plume Optimization Project**
 - Consists of two additional off-property extraction wells which will accelerate aquifer restoration
- **Re-Injection Demonstration Project**
 - Consists of five re-injection wells located along the FEMP's southern property line

Dates associated with all three ARP projects:

- Construction contract to install piping and electricity to be awarded 8/97
- Construction to be completed 6/98

Soils Characterization and Excavation Project

- **Area 1, Phase 1 (A1P1) Soils Excavation and Certification**
 - Excavation and certification efforts in A1P1 completed 7/1/97
- **Reports submitted to U.S. EPA:** 7/11/97
 - Site-Wide Excavation Plan
 - Comparability of In-Situ Gamm Spectrometry & Laboratory Data
 - RTRAK Applicability Study

Graphics 4681.6 8/97

000051

947



OPERABLE UNIT 5 Aquifer Restoration Project/Soils Characterization and Excavation Project

FERNALD

- Remediation designs and plans currently under development for Area 2, Phase 1 (OU2's Southern Waste Units). Start of site preparation activities (clearing and grubbing and construction of sediment basins) anticipated to begin this fall.

AWWT and Wastewater Treatment

- Advanced Wastewater Treatment (AWWT) Facility Expansion Project
 - Provides for an additional designed treatment capacity of 1,800 gpm for groundwater
 - Construction activities initiated; expected completion 3/98
- Sewage Treatment Plant
 - Relocate and modify existing Effluent Treatment System
 - Construction activities initiated; expected completion 2/98

Integrated Environmental Monitoring Plan (IEMP)

- Received conditional approval of IEMP
 - U.S. EPA 7/10/97
 - OEPA 7/11/97
 - Will consolidate reporting of environmental data into single annual report with quarterly status updates
 - Emphasizes on-site monitoring and property boundary monitoring to ensure unacceptable levels of contamination do not migrate off property

Graphics 4681. 7 8/97

000052

942



WASTE MANAGEMENT ACTIVITIES

FERNALD

- **Mixed Waste Projects:**
 - RCI Solvent Extraction Project startup scheduled mid August
 - Contract for Thorium Stabilization Project awarded 8/7/97
 - Treated 598 drums of waste in the Neutralization/Precipitation/Deactivation/
Stabilization Project 7/15/97
- **Developed an intermodal demonstration project plan; submitted to DOE-NV for review and stakeholder involvement** 5/97
- **As of Aug 8, shipped 413,503 cu. ft. of scheduled 612,000 cu. ft. of low-level waste to NTS in FY97**
- **Nuclear Materials Inventory (as of 7/1/97):**
 - Depleted -- 8,504,485 lbs.
 - Normal -- 438,446 lbs.
 - Enriched -- 6,778,415 lbs.
- **As a result of May 22 white metal box pressurization, DOE-NV requested that Fernald suspend shipments of residues until annual Waste Management Program Assessment scheduled for October 1997**
- **Thorium Overpack Project completed 5/22/97; All TOCs (971) have been shipped to NTS** 7/28/97
- **As part of a pilot study, approximately 30 tons (of 1500 tons) of copper have been size reduced and decontaminated for free release**

Graphics 4681. 8 8/97

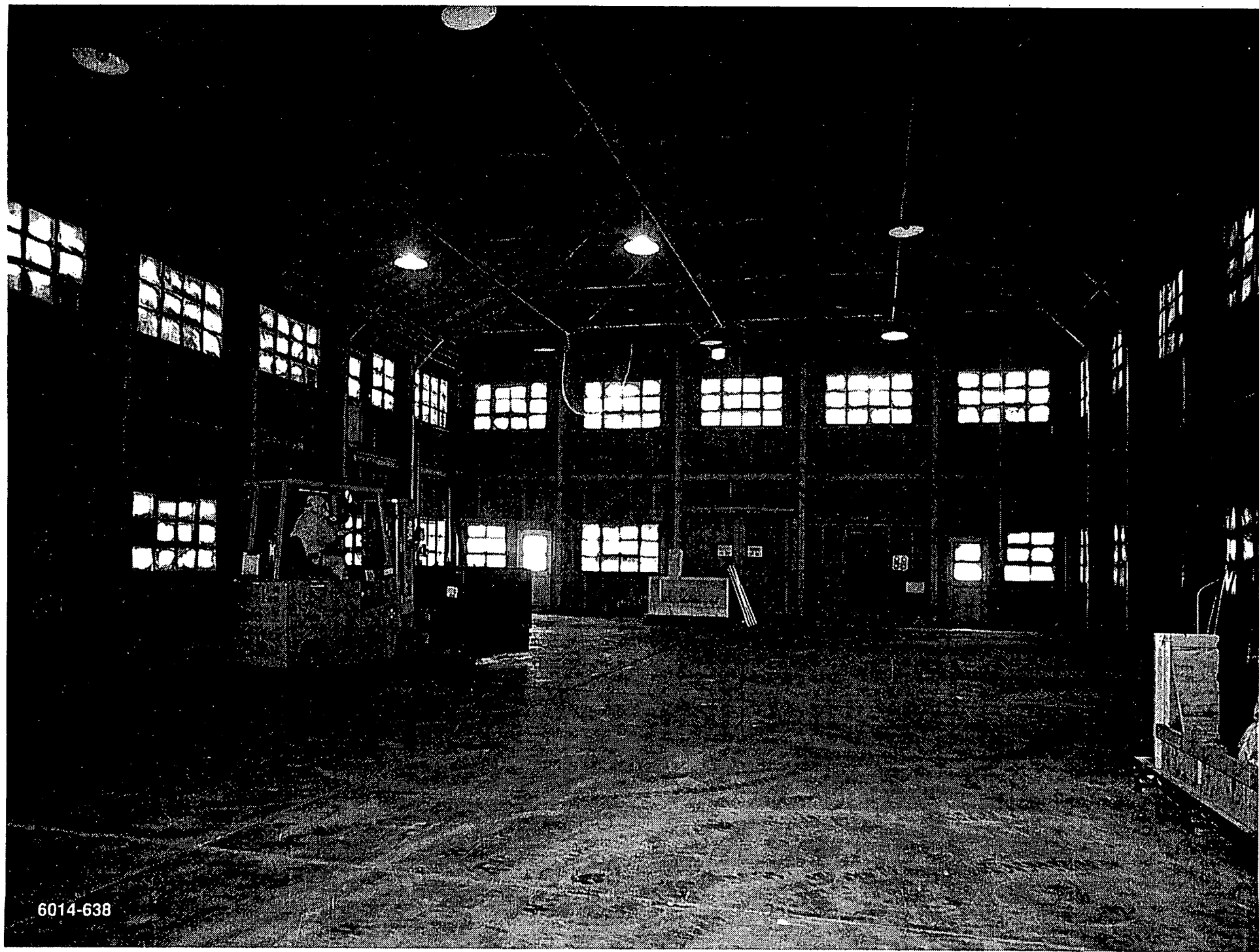
000053

942



6014-63

000054



6014-638



TECHNOLOGY PROGRAMS

FERNALD

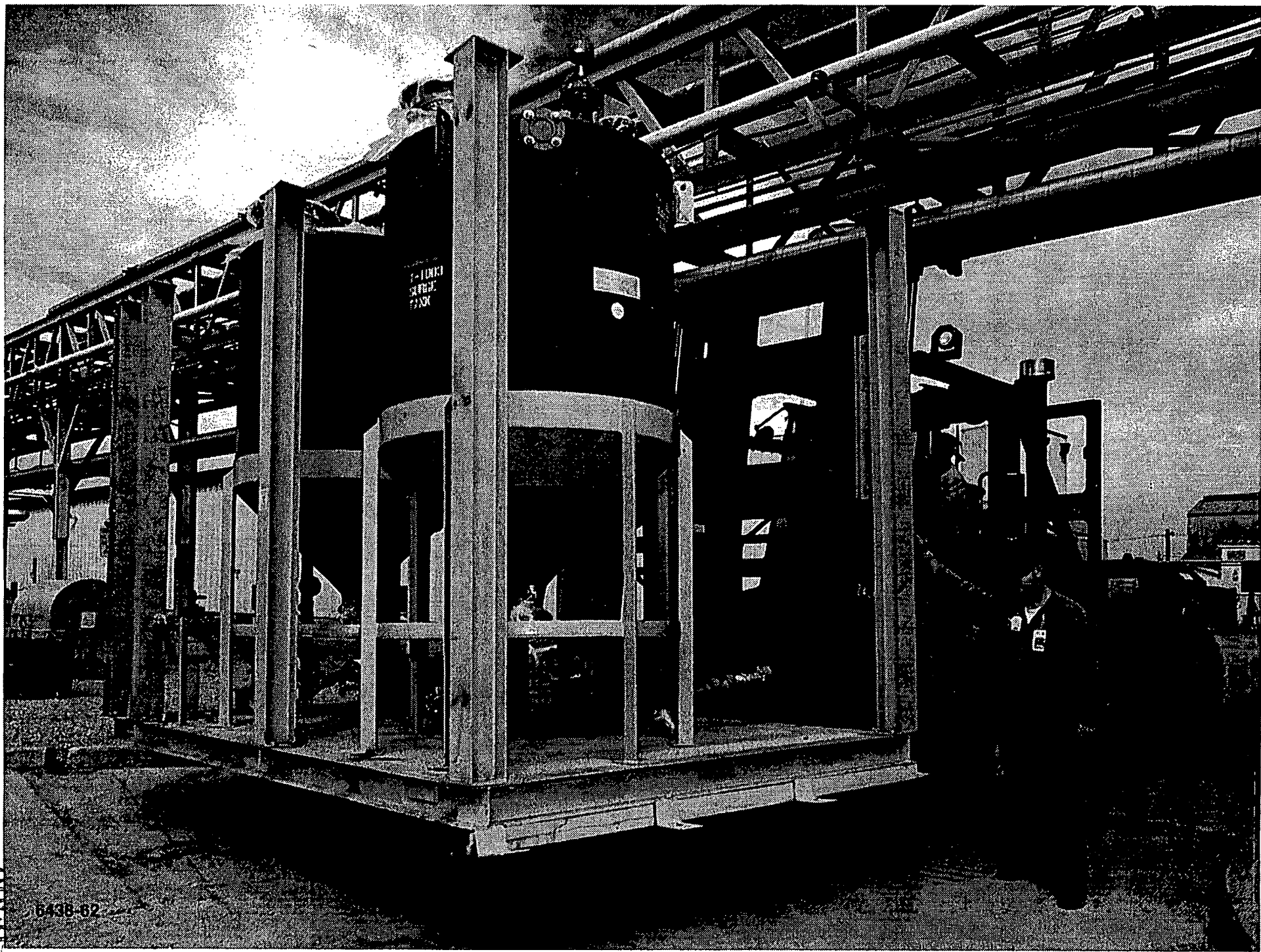
- Four proposals for Technology Deployment Initiative projects were submitted and all four were selected. This could mean \$13 million dollars of funding for the site to deploy innovative technology at the site for remediation. It is pending Congressional approval.
- Large Scale D&D technology preliminary demo work using "Cool Suit" began in July, additional beneficial D&D demonstrations are planned
- Hosted meetings of the stakeholder Site Technology Coordination Group (STCG) in June and July
- Transferred the soil washing demonstration processing equipment to DOE-Ashtabula for beneficial reuse
- Investigating the transfer of the MAWS demonstration equipment for beneficial reuse



6429-352

000057

947



6438-62